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**REMARKS**

In response to Applicant's request to withdraw the finality of the outstanding Office Action, the Examiner agreed with Applicant that the previously filed amendment, whereby the limitation of claim 3 and the "circulating" limitation were incorporated into claim 1, was not the basis for making the outstanding Office Action Final. The Examiner maintains the finality of the outstanding Office Action by alleging in the Advisory Action dated August 3, 2004, that "[c]laim 1 was also amended to change the term 'memory array' to 'ring buffer' in lines 2 and 5 of claim 1." From this, it appears that the Examiner believes that three amendments were made to claim 1; namely, (1) limitation of claim 3 into claim 1, (2) "circulating" limitation into claim 1, and (3) changing "memory array" to "ring buffer." However, the third change of "memory array" to "ring buffer" is simply the incorporation of claim 3 into claim 1 so that the above-mentioned amendments (1) and (3) are the same; that is, only two amendments were made to claim 1.

As the Examiner has already agreed that these two amendments were not the basis of making the outstanding Office Action Final and because there are no other amendments that were made to claim 1, it is respectfully submitted that the aforementioned new ground of rejection over prior art was not necessitated by amendment, rendering the finality of the outstanding Office Action premature. Accordingly, it is respectfully requested that the finality of the outstanding Office Action be withdrawn, and for this amendment to be treated as a response to a non-final Office Action.

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Claim 21 stands objected to for minor informalities, claims 1-5, 11-15 and 21 stand rejected under 35 U.S.C. § 112, first paragraph (written description), and claims 1, 2, 4, 5, 11, 12, 14 and 15 stand rejected under 35 U.S.C. § 103. Solely in order to expedite prosecution, these claims have been canceled without prejudice/disclaimer rendering the objection/rejections thereto moot.

Claims 6, 7, 10, 16, 17 and 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over APA in view of O'Neill. This rejection is respectfully traversed for the following reasons.

In response to Applicant's traverse of the pending rejection, the Examiner asserts that "O'Neill was not relied upon for [teaching] ... first and second boundary pointers ... [r]ather, APA was relied upon for teaching these limitations." However, as previously argued in Applicants' response dated June 21, 2004, APA is directed to a one-ring memory whereby the alleged boundary pointers of APA *are in fact read pointers* (i.e., read pointers that function as boundaries). That is, APA does NOT have boundary pointers and consists of a one-ring memory.

Accordingly, at best, any modification of APA using the "adjustable boundary pointer" teachings of O'Neill "in order to allow the sizes and relative sizes of the buffers to be varied" necessarily would require fundamentally changing APA from a "one ring" buffer to a plural ring buffer as taught by O'Neill. In this regard, O'Neill discloses a memory array which consists of a plurality of ring buffers where each of the address locations, for example, Tx of 1, Rx of 1 and Tx of 2 in Fig.2, acts as one ring buffer; but the memory array as a whole does not act as one ring buffer.

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It follows that the boundary pointers disclosed in O'Neill are specifically designed to vary the sizes of respective rings in such a plural ring memory in response to demand needs over the plural rings. Accordingly, the boundary pointers of O'Neill do NOT correspond to the read pointers of APA, and the teachings of adjustable boundary pointers by O'Neill in a plural ring memory are NOT applicable to a one-ring memory taught in APA having read pointers.

Indeed, as expressly stated by the Examiner's own relied on motivation for making the combination, the modification of APA was specifically made to allow the sizes of the plural buffers to be varied. Such a motivation inherently requires the resulting combination to define adjustable boundary pointers for a memory acting as plural rings rather than one ring. In contrast, claim 6 and similarly claim 16 recites in pertinent part, "a ring buffer, which acts as one ring, having a plurality of address locations for storing incoming data; a first boundary pointer ... ; a second boundary pointer ... ; and a controller for adjusting the value of said first boundary pointer and said second boundary pointer ... ."

That is, the present invention defines a combination of a one-ring buffer having adjustable boundaries (*see* Figure 4A-4D of Applicant's drawings which illustrates one exemplary embodiment of the present invention). On the other hand, the proposed combination of prior art would result in a device having plural rings and adjustable boundaries. The cited prior art is completely silent as to the *combination* of a ring buffer which acts as one ring and plural boundary pointers controlled in accordance with an amount of incoming data. Only Applicant has considered and conceived of such a novel combination, and provided the motivation and means to enable such a combination.

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The Examiner asserts in the Advisory Action that "O'Neill is only relied upon for those teachings not found in APA, particularly the adjusting of boundary pointers ... ." However, as described in detail above, the teachings of "adjusting boundary pointers" in O'Neill are necessarily tied to its plural ring memory arrangement. Again, the Examiner is reminded that APA does not have boundary pointers and consists of just one ring so that applying the teachings of O'Neill thereto, *absent hindsight reasoning*, would necessitate converting APA into a plural ring memory "to allow the sizes and relative sizes of the buffers to be varied." As relied upon by the Examiner and described throughout O'Neill, the adjustable boundary pointers are specifically designed to vary memory allocation in response to incoming demand over *plural* ports designated over *plural* buffer rings.

The Examiner is directed to MPEP § 2141.02 under the heading "PRIOR ART MUST BE CONSIDERED IN ITS ENTIRETY, INCLUDING DISCLOSURES THAT TEACH AWAY FROM THE CLAIMS", which sets forth the applicable standard:

A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).

In the instant case, it is submitted that O'Neill, when considered in its entirety, discloses adjustable boundaries for a *plural* ring memory system and would lead away from a one-ring memory. Accordingly, it is submitted that the Examiner can not selectively separate the "adjustable boundary pointer" teachings of O'Neill from its plural ring memory system, and apply it to a one-ring memory which does not have boundary pointers to begin with. Such a modification is not suggested by the prior art and is inescapably based solely on improper hindsight reasoning, whereby the Examiner selects bits and

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pieces of the prior art and uses only Applicants' specification as a guide to reconstruct the claimed invention. Again, the relied on motivation of varying sizes of plural buffers emphasizes the point that the resulting combination would not be a one-ring buffer.

The Examiner is further directed to MPEP § 2143.01 under the subsection entitled "Fact that the Claimed Invention is Within the Capabilities of One of Ordinary Skill in the Art is Not Sufficient by Itself to Establish *Prima Facie* Obviousness", which sets forth the applicable standard:

A statement that modifications of the prior art to meet the claimed invention would have been [obvious] because the references relied upon teach that all aspects of the claimed invention were *individually* known in the art is *not* sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. (citing *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993)).

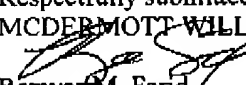
In the instant case, even assuming *arguendo* that APA and O'Neill "teach that all aspects of the claimed invention [are] individually known in the art", it is submitted that such a conclusion "is not sufficient to establish a *prima facie* case of obviousness" because there is no *objective* reason on the record to combine the teachings of the cited prior art. At best, the Examiner has attempted to show only that the elements (i.e., ring buffer, which acts as one ring, having a plurality of address locations for storing incoming data, and, plural boundary pointers controlled in accordance with amount of incoming data) of the claimed invention are *individually* known without providing a *prima facie* showing of obviousness that the *combination* of elements recited in the claims is known or suggested in the art. That is, the cited prior art does not suggest a one-ring system with adjustable boundary pointers.

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Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplicatic Engineering Co.*, 819F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as the independent claims are patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also patentable. In addition, it is respectfully submitted that the dependent claims are patentable based on their own merits by adding novel and non-obvious features to the combination. Based on all the foregoing, it is submitted that all pending claims are patentable over the cited prior art.

#### CONCLUSION

Having fully and completely responded to the Office Action, Applicants submit that all of the claims are now in condition for allowance, an indication of which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below. To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,  
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